

C P-COUMARIC-ACID

Chemid

PCOUMARICACID

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Actinidia chinensis	Plant	--	--		--
Agrimonia eupatoria	Plant	--	--		--
Allium ampeloprasum	Plant	--	--		--
Allium cepa	Bulb	--	--		--
Allium cepa	Leaf	--	--		Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
Allium cepa	Root	--	--		Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
Allium sativum var. sativum	Bulb	2	58		--
Allium schoenoprasum	Leaf	21	21	-0.34446373826744014	--
Aloe vera	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
Aloe vera	Juice	--	--		Waller, G. R., Mangiafico, S., Ritchey, C. R. 1978. A Chemical Investigation of Aloe barbadensis. Proc. Okla. Acad. Sci. 58: 69-.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Aloe vera	Leaf	--	--		Doff, W. 1953. In Vitro Tuberculostatic Action of Aloe and its Most Important Components. <i>Arzneim-Forsch</i> 3: 627-630.
Althaea officinalis	Leaf	--	--		--
Althaea officinalis	Root	--	--		--
Althaea officinalis	Flower	--	--		--
Ananas comosus	Plant	330	730	1	--
Anethum graveolens	Leaf	--	16	-0.34577655264533097	--
Annona muricata	Plant	--	--		--
Apium graveolens	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Arachis hypogaea	Seed	20	20	-0.48301484453840043	--
Arctostaphylos uva-ursi	Leaf	--	--		--
Artemisia absinthium	Plant	--	--		--
Artemisia dracuncululus	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
Aspalathus linearis	Shoot	--	1	-0.7071067811865475	--
Avena sativa	Seed	--	--		--
Averrhoa carambola	Plant	--	--		--
Basella alba	Plant	--	--		--
Beta vulgaris	Plant	--	--		--
Brassica nigra	Seed	--	--		Jim Duke's personal files.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Brassica oleracea var. botrytis l.	Leaf	--	13	-0.3465642412720655	--
Brassica oleracea var. botrytis l.	Flower	--	35		--
Brassica oleracea var. capitata l.	Leaf	0.5	9	-0.34761449277437817	--
Brassica oleracea var. gemmifera	Leaf	12	12	-0.34682680414764366	--
Brassica oleracea var. italica	Leaf	--	13	-0.3465642412720655	--
Brassica pekinensis	Leaf	7	7	-0.3481396185255345	--
Calendula officinalis	Plant	--	--		--
Capsicum annum	Fruit	79	79	-0.3401508451648206	--
Capsicum frutescens	Fruit	540	540	2.293291804958545	--
Carum carvi	Seed	--	86	-0.2878871950232701	--
Castanea sativa	Plant	--	--		--
Catalpa bignonioides	Leaf	15000	15000	3.5884655750178984	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Catalpa ovata	Fruit	--	--		--
Centaurea cyanus	Flower	--	--		Jim Duke's personal files.
Centaureum erythraea	Plant	--	--		--
Cinnamomum verum	Bark	--	14		--
Citrus limon	Fruit	6	102	-0.20876433550573723	--
Citrus paradisi	Fruit	0	53	-0.4886747256490017	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Citrus paradisi	Pericarp	5	25	-1	--
Citrus sinensis	Fruit	5	17	-0.6943231755501756	--
Citrus sinensis	Pericarp	5	17	1	--
Citrus sinensis	Fruit Juice	--	--		Jim Duke's personal files.
Cocos nucifera	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Coffea arabica	Plant	--	--		--
Commelina communis	Flower	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Coriandrum sativum	Fruit	--	16	-0.700035632491875	--
Curcuma longa	Rhizome	--	345	1	--
Cyamopsis tetragonoloba	Silk Stigma Style	--	--		Kandasamy, M. K. 1986. The Stigmatic Exudate of Cyamopsis tetragonoloba L. Taub. Biochem Physiol Pflanz, 181(8): 571-575.
Cydonia oblonga	Fruit	--	--		--
Daucus carota	Root	--	--		--
Digitalis purpurea	Leaf	--	--		--
Echinacea purpurea	Fruit Juice	--	--		Jim Duke's personal files.
Elaeagnus angustifolia	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Elettaria cardamomum	Fruit	--	19	-0.682898261666777	--
Elettaria cardamomum	Leaf	--	--		--
Eleutherococcus senticosus	Root	--	--		--
Equisetum arvense	Plant	--	--		--
Eucalyptus maculata	Resin, Exudate, Sap	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Euphorbia hirta	Leaf	--	--		--
Euphorbia lathyris	Leaf	--	--		--
Fagopyrum esculentum	Testa	--	--		--
Ficus carica	Wood	--	--		--
Foeniculum vulgare	Fruit	--	93	-0.26017644798103073	--
Foeniculum vulgare	Seed	60	93	-0.2671918382565138	--
Fragaria spp	Fruit	63	125	-0.07737782584665391	Jim Duke's personal files.
Gaultheria procumbens	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ginkgo biloba	Pollen Or Spore	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
Glechoma hederacea	Plant	--	--		--
Glycine max	Seed	1	4	-0.5303185171481289	--
Glycine max	Shoot	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Gossypium sp	Plant	--	--		--
Hedera helix	Plant	--	--		--
Helianthus annuus	Pollen Or Spore	11	11		--
Helianthus annuus	Seed	900	1100	2.709983056618278	Jim Duke's personal files.
Hordeum vulgare	Seed	--	--		--
Hordeum vulgare	Fruit	--	--		--
Humulus lupulus	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Hura crepitans	Leaf	--	--		--
Hypericum perforatum	Plant	--	--		--
Juglans regia	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Juglans regia	Seed	0.5	3.5	-0.531796756917183	--
Juglans regia	Testa	160	600		--
Juniperus communis	Leaf	--	--		--
Kalanchoe pinnata	Plant	--	--		--
Lactuca sativa	Plant	--	--		--
Laurus nobilis	Fruit	--	20	-0.6771858047250778	--
Laurus nobilis	Leaf	--	192	-0.2995654865435739	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Lens culinaris	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
Ligustrum japonicum	Leaf	--	--		--
Linum usitatissimum	Seed	--	60	-0.364755663014079	--
Lycopersicon esculentum	Fruit	--	--		--
Lythrum salicaria	Leaf	--	--		--
Malus domestica	Fruit	15	460	1.836295249622603	--
Malus domestica	Leaf	--	--		--
Mangifera indica	Plant	--	--		--
Matricaria recutita	Plant	--	--		Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
Medicago sativa	Tissue Culture	--	--		--
Medicago sativa	Leaf	--	--		--
Melilotus officinalis	Plant	--	--		Pharmazie, 46: 156, 1991.
Melilotus officinalis	Shoot	--	--		--
Melissa officinalis	Shoot	--	8.3	1.414213562373095	--
Mentha x piperita	Shoot	--	--		--
Mentha x rotundifolia	Shoot	--	--		Jim Duke's personal files.
Myristica fragrans	Seed	--	7	-0.5214490785338048	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Nicotiana tabacum	Flower	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ocimum basilicum	Leaf	760	760	-0.150429773215176	--
Oenothera biennis	Leaf	--	--		--
Olea europaea	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ononis spinosa	Root	--	--		Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.
Origanum majorana	Leaf	--	1100	-0.06115839551859982	--
Origanum vulgare	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
Origanum vulgare	Leaf	--	--		--
Oryza sativa	Petiole	0.9	0.9		--
Panax ginseng	Root	--	--		--
Papaver somniferum	Pericarp	--	--		--
Persea americana	Fruit	--	--		--
Petroselinum crispum	Stem	--	--		--
Phaseolus vulgaris	Plant	--	--		--
Pimpinella anisum	Seed	--	737	1.636780984285061	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Pinus sylvestris	Pollen Or Spore	--	--		--
Piper nigrum	Fruit	--	--		--
Pisum sativum	Seed	--	--		--
Plantago major	Plant	--	--		--
Polygala senega	Root	--	--		--
Populus balsamifera	Leaf	--	--		--
Prunus armeniaca	Plant	--	--		--
Prunus cerasus	Fruit	--	--		--
Prunus domestica	Fruit	--	--		Jim Duke's personal files.
Prunus dulcis	Plant	--	--		--
Prunus laurocerasus	Plant	--	--		--
Prunus persica	Leaf	--	--		--
Prunus serotina	Bark	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Pteridium aquilinum	Leaf	--	--		--
Pteridium aquilinum	Plant	--	--		--
Pueraria montana	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Pueraria montana	Flower	--	--		--
Punica granatum	Fruit Juice	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Punica granatum	Leaf	--	--		--
Raphanus sativus	Root	91	91		--
Rheum rhabarbarum	Pt	44	44		--
Rheum rhabarbarum	Root	--	--		--
Ribes nigrum	Fruit	--	--		--
Ribes uva-crispa	Fruit	--	--		--
Ricinus communis	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Rosa canina	Stem	--	--		--
Rosa canina	Tissue Culture	--	--		--
Rubus idaeus	Leaf	--	--		--
Rubus idaeus	Bark	--	--		--
Rubus idaeus	Plant	--	--		--
Rubus idaeus	Juice	--	--		--
Rubus parviflorus	Leaf	--	--		Li, C.Y. 1974. Phenolic Compounds in Understory Species of Alder, Conifer, and Mixed Alder-Conifer Stands of Coastal Oregon. Lloydia, 37(4): 603-607.
Rubus spectabilis	Leaf	--	--		Li, C.Y. 1974. Phenolic Compounds in Understory Species of Alder, Conifer, and Mixed Alder-Conifer Stands of Coastal Oregon. Lloydia, 37(4): 603-607.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Salix alba	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Salvia officinalis	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
Salvia sp.	Seed	19	19	-0.48597132407650845	Phenolic Compounds in Food and Their Effects on Health, 67.
Sambucus nigra	Flower	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Sanguisorba minor	Plant	--	--		--
Santolina chamaecyparissus	Plant	--	--		--
Serenoa repens	Fruit Juice	--	--		--
Sesamum indicum	Fruit	--	--		--
Sesamum indicum	Leaf	--	--		--
Solanum tuberosum	Tuber	4	250		--
Solidago gigantea	Plant	--	45	-1	--
Sophora japonica	Plant	--	--		--
Sorbus aucubaria	Plant	--	--		--
Spinacia oleracea	Leaf	133	133	-0.31505669620268567	--
Stachys officinalis	Shoot	--	--		--
Tagetes patula	Plant	--	--		--
Taraxacum officinale	Plant	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Taraxacum officinale	Flower	--	--		--
Taxus baccata	Leaf	4	965	-0.09660438372165213	--
Terminalia chebula	Plant	--	--		Kim, J. S., Lee, G. D., Kwon, J. H., Yoon, H. S. 1993. Identification of Phenolic Antioxidative Components in Terminalia chebula Retz. Han'guk Nonghwa Hakhoe Chi 36 4: 239-243.
Theobroma cacao	Seed	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Thymus vulgaris	Leaf	420	420	-0.2397011509117522	--
Tilia sp.	Flower	--	--		--
Trifolium pratense	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
Trigonella foenum-graecum	Stem	--	--		--
Trigonella foenum-graecum	Plant	--	--		--
Triticum aestivum	Seed	17	25	-0.46823244684786025	--
Urginea maritima	Bulb	--	--		--
Urtica dioica	Plant	--	--		--
Vaccinium corymbosum	Plant	--	--		--
Vaccinium macrocarpon	Fruit	--	--		--
Vaccinium myrtillus	Leaf	--	--		--
Vaccinium myrtillus	Fruit	--	--		--
Vaccinium myrtillus	Fruit Juice	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Valeriana officinalis	Plant	--	--		--
Vicia faba	Plant	--	--		--
Vigna radiata	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
Vinca minor	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Viola tricolor	Plant	--	--		--
Vitis vinifera	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Zea mays	Seed	4	46	-0.4061463765475915	--
Zea mays	Shoot	1	1	-0.7071067811865475	Jim Duke's personal files.
Zea mays	Sprout Seedling	--	--		--
Zingiber officinale	Rhizome	19	19	-1	--